

REMARKS:

Upon entry of the instant Preliminary Amendment, claims 3, 4, 5, 7, 9, 11, and 13-15 are pending. Claims 1, 2, 6, 8, 10, and 12 have been canceled without prejudice. Claims 3, 4, 5, 7, 9, 11, and 13 have been amended. New claims 14 and 15 have been added. No new matter has been introduced. Applicant respectfully requests an action on the merits.

In a July 2, 2001 Office Action in the parent case, the Examiner allowed claims 1, 2, 6, 8, 10 and 12. The Examiner rejected claims 9, 11, and 13 under 35 U.S.C. § 103(a) as being unpatentable over Fusaki (Japanese Patent 07-093669), hereinafter referred to as "Fusaki". In addition, the Examiner rejected claims 3, 5, and 7 under 35 U.S.C. § 103(a) as being unpatentable over Fusaki in view of U.S. Patent No. 5,086,385 to Launey et al. (hereinafter referred to as "Launey"). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Fusaki in view Launey and further in view of U.S. Patent No. 6,173,259 to Bijl et al. (hereinafter referred to as "Bijl"). These rejections are respectfully traversed.

The present invention is directed to an information apparatus for sending output information to a remote terminal in response to an input signal of a sound. The apparatus has a first memory block that stores characteristic data representing characteristics of various sounds. There is also a second memory block that stores various items of output information associated with the characteristic data of the various sounds. The apparatus further has an input device that collects a sound and provides an input signal of the collected sound. An analyzer device extracts characteristic data from the input signal of the collected sound. A controller device then operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify the item of the output information corresponding to the

collected sound. The apparatus further has a transmitter device that transmits the identified item of the output information to the remote terminal.

According to the instant invention, a new sound and a corresponding item of output information can be registered to update the first memory block and the second memory block. When updating the output information, the controller device registers the extracted new characteristic data into the first memory block and registers the corresponding item of the output information into the second memory block. In addition, the user is able to command the operation of the information announcing apparatus from a remote location by using the remote terminal to select and set the operation mode of the apparatus.

In another embodiment, the apparatus contains a plurality of input devices, such as microphones, which are configured to collect a sound and generate respective input signals of the same sound. Given the multiple input devices, the invention also includes the capability to detect and identify the location of a sound source. Also included is a canceler device. Here, specific items of sounds which should not be detected by the apparatus are initially stored. Then, during operation, if an unwanted sound is received by one of the plurality of input devices, the canceler device cancels the transmission of the sound source location.

In the Office Action dated July 2, 2001, claims 9, 11, and 13, were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fusaki. However, it is respectfully submitted that Fusaki does not disclose the inventions claimed in claims 9, 11, and 13. More specifically, Fusaki discloses a guidance system for sight- and hearing-impaired persons. In Fusaki, the sight- and hearing-impaired person (i.e., the "user") manipulates a remote controller to input a guidance request when the user enters into a shopping establishment. In response, the server of the

shopping establishment provides the user with guidance information in the form of verbal or visual messages.

As an initial matter, contrary to the requirements of amended claim 9, Fusaki does not disclose, teach, or suggest the use of a sound as an input. More specifically, in Fusaki, the user physically manipulates the keys of a remote controller in order to initiate a guidance request. Amended claim 9, on the other hand, recites “a method of notifying output information to a remote terminal in response to an input signal of a sound”. (Emphasis added). Put another way, in the instant invention, physical, manipulative action by the user is not necessarily required to initiate the notification process recited in amended claim 9. In sharp contrast, the system disclosed in Fusaki is useful only if the human user takes physical, manipulative action. As such, it is respectfully submitted that Fusaki relates to a completely different application than the one to which the invention of amended claim 9 relates.

Nevertheless, even if Fusaki were a relevant reference, it fails to disclose all of the limitations of amended claim 9. In this regard, amended claim 9 recites, *inter alia*:

storing characteristic data representing characteristics of various sounds in a first memory;

storing various items of output information in correspondence to the characteristic data of the various sounds in a second memory such that each one of the items of the output information is associated to each sound. (Emphasis added).

In this regard, the Examiner contends that “the initial features of two memories, the one (to match *input characteristics*) being *associated* with the other (for *output*) is claimed by Fusaki (claim 4)”. Office Action, p. 5. (Emphases in original). However, it is respectfully noted that claim 4 of Fusaki merely discloses a “guidance demand” and a “guidance information”. There is

no disclosure or teaching that the former and the latter are associated with each other in any way, much less a disclosure or teaching that the association is on a one-to-one basis.

It is also respectfully noted that such a one-to-one association cannot be assumed without engaging in hindsight. More specifically, in Fusaki, the “guidance request” that is input by the user might result in one of several “valid” responses, as would be the case if the user’s request were to contain certain common keywords. In such a case, the user may receive several responses (in sequence), and may have to narrow down his/her “guidance request” by including a more-detailed description of the article sought, before settling on the most appropriate response. Clearly, in such a case, there would be no one-to-one correspondence per se between the input and output information. Thus, not only is a one-to-one correspondence (between the input characteristics, on the one hand, and the output, on the other,) not disclosed by Fusaki, but also such correspondence cannot be assumed in Fusaki without the use of hindsight. As such, it is respectfully submitted that this limitation of amended claim 9 is not disclosed, taught, or suggested by the cited reference.

Amended claim 9 further recites:

arranging a plurality of input devices in different locations, said input devices being configured to collect the sound from a source location such that each one of the input devices provides input signals of the same sound emitted from the source location. (Emphasis added).

With regard to the above, the Examiner states that “[t]he feature of *inputs* is claimed (by claim 1 & 7 [sic]”. See Office Action, p. 5. (Emphasis in original). However, neither claim 1, nor claim 7, discloses an input device that is configured to collect “sound from a source location”. More specifically, claim 1 of Fusaki recites a “guidance demand” which is “inputted”

into the "pocket equipment" that is carried by the sight- and hearing-impaired person. Similarly, claim 7 recites "[t]he key input means for pocket equipment inputting two or more guidance demand informations [sic]" and "the guidance demand information that it [sic] inputted with the above-mentioned key input means". Thus, in both instances cited by the Examiner, Fusaki discloses an "input", wherein the user "keys in" the information into his/her pocket equipment. As such, there is no disclosure of an input device that is configured to collect sound from a source location. It is respectfully noted that, the fact that such a disclosure is lacking in Fusaki further supports the Applicant's position that Fusaki is not relevant to the instant invention as, *inter alia*, it does not treat inputs involving a sound. Thus, this limitation of amended claim 9 is not met by Fusaki.

Moreover, since Fusaki does not disclose, teach, or suggest even a single input device which is configured to collect sound from a source location, then, *a fortiori*, it also does not disclose a plurality of such devices arranged in different locations. As such, this further limitation of amended claim 9 is also not met by the cited reference. Finally, it also follows that the additional limitation in amended claim 9, i.e., that each of the input devices is to provide an input signal of the same sound emitted from the source location, is also not disclosed, taught, or suggested by Fusaki. Thus, for these additional reasons, it is respectfully submitted that amended claim 9 distinguishes over Fusaki.

Claim 9 further recites "extracting characteristic data from at least one of the input signals of the collected sound". (Emphasis added). In addressing this limitation, the Examiner contends that "analysis" is disclosed by Fusaki, on page 3 of 8, line 3. *See* Office Action, p. 5. In addition, in what appears to be the assertion of an Official Notice, the Examiner states that

“[i]t is well known in the art of communications that analysis of a signal to detect and identify speech requires extraction of the frequency spectrum to extract a characteristic pattern.” *Id.* (Emphasis added). First, Fusaki states, at p. 3 of 8, lines 3-4, that “analysis and a judgment are performed and the judgment result information S14 which it is as a result [sic] is sent out to dispatch . . .”. The citation, however, does not mention what kind of “analysis” or “judgment” is performed. Therefore, inasmuch as it is well established that “old combinations” (or combinations of existing parts) are not per se unpatentable, it is respectfully submitted that a generic reference to “analysis” is insufficient to render obvious the specific kind of analysis taught by the instant invention, and recited in amended claim 9.

In apparent recognition of the latter point, the Examiner asserts the Official Notice mentioned above. However, it is not understood how the Official Notice can be combined with the primary reference (i.e., Fusaki) for an obviousness rejection, as the former refers to the detection and identification of speech, while the latter is completely devoid of any reference to any sound input, including speech (again, in Fusaki, the input signal is keyed in manually). Moreover, the recitation of “sound” in amended claim 9 is not limited to “speech input”. *See, e.g.*, Specification, p. 14, lines 23-24 (sound may include a human voice, a telephone ringing tone, an alarm sound, the barking sound of a dog, etc.). Nevertheless, even if Fusaki could be combined with the Examiner’s Official Notice, given the shortcomings of Fusaki (as detailed above), it is respectfully submitted that the reference and the Official Notice do not, either individually or in combination, render amended claim 9 obvious.

Claim 9 further recites “transmitting the identified one of the items of the output information to the remote terminal together with the detected source location of the sound”.

First, as was mentioned above in relation to the “analysis” limitation, Applicant respectfully submits that a generic reference to “transmission” or “transmitters” is insufficient to meet this limitation of amended claim 9. This is especially true since the underlying reference, i.e., Fusaki, is deemed not to be relevant, or applicable, to the instant invention.

The latter, however, is nowhere disclosed, taught, or suggested in Fusaki. In fact, this feature could not be addressed by Fusaki as: (1) this reference does not address sound input from the “source”; and (2) even if sound input were included, Fusaki is related to applications where the “source” is already known, i.e., the sight/hearing-impaired person keying in the input information is the source. Thus, there is no need in Fusaki to identify the “source” of the input information and, as such, there is not, and there cannot be, any disclosure in Fusaki of

transmission of output information "together with the source location of the sound". As such, this limitation of amended claim 9 is also not met by the cited reference.

In Par. 3 on page 6 of the Office Action dated July 2, 2001, the Examiner states that:

Further regarding claims 9, 11 and 13, the features are addressed in response to claims cited previously, as: . . . The *contents of the memories*, (collected) *inputs*, *identification* and *transmitter* are addressed in claims 1 and 3. (Emphasis in original).

It is assumed that, in the above-quoted section, the Examiner is referring to the claims that were addressed in the Office Action dated March 9, 2001, as claim 1 has already been allowed and, as such, is not further treated by the Examiner in the Office Action dated July 2, 2001. This being the case, upon review of the Office Action dated March 9, 2001, the Applicant has found no additional points (to those detailed above) which need to be addressed with regard to the previous rejection of claim 1.

With regard to the previous rejection of claim 3 in the Office Action dated March 9, 2001, the Examiner states:

While Fusaki does not address the added feature of *multiple inputs*, Launey et al describes them (as item 64 in figure 1), making it obvious to a person of ordinary skill in communication at the time of the invention to provide for multiple inputs to allow usage from different locations as well as to simultaneously serve different individuals. Office Action of March 9, 2001, p. 7. (Emphases in original).

Thus, although in the Office Action dated July 2, 2001, the Examiner rejected claims 9, 11, and 13 on the basis of Fusaki, there appears to be an implicit rejection of these claims over Fusaki, in light of Launey. In addition, in the Office Action dated July 2, 2001, prior to addressing individual claim rejections, the Examiner stated:

with regard to the issue that that [sic] the source of the sound is not addressed by prior art, attention is directed to Launey et al column 15 lines 13-48 which makes it obvious that the microphones are connected for different functions, making it obvious to a person of ordinary skill in the art of control signal processing at the time of the invention that *location* of the microphone is of as much significance as the command. To illustrate, if the apparatus of the prior art controlled lamps in bedrooms, kitchen and bath, the following scenarios occur:

- A person giving the command, “light on” would illuminate every room, or
- The room they were in would have to be designated, as “bath light on”

It would have been obvious at the time of the invention that determining the room the command is given in to further define the devices will reduce the size, complexity and number of commands required. Office Action of July 2, 2001, p. 4. (Emphases in original).

Launey discloses an automation system to control various appliances and subsystems within a home or commercial space. Although “remote microphones” are disclosed in Fig. 1 thereof, it is respectfully submitted that Launey is not relevant to the instant invention and, as such, it also cannot be combined with Fusaki to form the basis of an obviousness rejection.

More specifically, Launey is directed to a system and method for operating various appliances through different kinds of input devices, including a microphone. Thus, in Launey, an input is used to trigger an automatic action in an appliance as the output. In Fusaki, on the other hand, a user uses a “pocket equipment” to manually provide an input in order to solicit informational output that is sent to the same pocket equipment for use by the user. That is, the two references disclose completely different systems with vastly disparate applications. This is especially true in light of the fact that Fusaki provides no accommodation whatsoever for the use of sound as an input. As such, it is respectfully submitted that the Fusaki and Launey references cannot properly form the basis of a 35 U.S.C. § 103(a) rejection as there is no suggestion

whatsoever that the two references may be combined. *See, e.g., In re Jones*, 958 F.2d 347, 351, 21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992) (“Before the PTO may establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.”).

Nevertheless, even if the two references could properly be combined, it is respectfully submitted that Launey does not rectify the shortcomings of Fusaki. More specifically, amended claim 9 recites, *inter alia*:

arranging a plurality of input devices in different locations, said input devices being configured to collect the sound from a source location such that each one of the input devices provides input signals of the same sound emitted from the source location;

...
transmitting the identified one of the items of the output information to the remote terminal together with the detected source location of the sound. (Emphasis added).

Although Launey discloses “remote microphones”, there is no disclosure therein of arranging a plurality of input devices in different locations, wherein all of the input devices are configured to collect a single sound from the same source location, and then provide input signals of the same sound emitted from the source location. There is also no disclosure of identifying and transmitting the detected source location of the sound to a remote terminal. Thus, although the disclosure of Launey may arguably include the use of a plurality of microphones as input devices, each input device is used to activate a separate appliance as an output.

Within the context of the example used by the Examiner and quoted above, in order to force Launey to even come close to being applicable to the instant invention, the following scenario would have to exist: with a microphone in a room on one side of a house, and a microphone in a room on a second side of the same house, the voice of a person giving the command "light on" in one of the rooms would have to be detected by both the microphone in that room, as well as the microphone in the second room (given Launey's system, there is no reason to place two microphones in the same room). Otherwise, the limitation that "each one of the input devices" provide input signals of the same sound emitted from the same location would not be met. However, the scenario just described is nonsensical within the context of the system disclosed in Launey because, as was discussed above, Launey's system is geared towards an application that is very different from that of the instant invention, and thus, is non-relevant art.

In light of the above, it is respectfully submitted that the cited references do not, either individually or in combination, render claim 9, as amended, obvious. In addition, since amended claims 11 and 13 contain limitations that are similar to claim 9, as amended, it is respectfully submitted that amended claims 11 and 13 also distinguish over the cited references. As such, Applicant respectfully requests that the rejections as to claims 9, 11, and 13 be withdrawn as these claims are believed to be in condition for allowance.

The Examiner also rejected claims 3, 5, and 7 under 35 U.S.C. § 103(a) as being unpatentable over Fusaki in view of Launey. Amended claim 3 contains limitations that are similar to amended claim 9. As such, without repeating, the Applicant incorporates by reference the discussion that was detailed above regarding the reasons why each claim distinguishes over the cited references. In addition, since amended claims 5 and 7 depend from claim 3, it is

respectfully submitted that these claims, too, distinguish over the cited references and, as such, are also in condition for allowance. Therefore, it is respectfully requested that the rejection of amended claims 3, 5, and 7 be withdrawn.

The Examiner also rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Fusaki in view of Launey and further in view of Bijl. Inasmuch as claim 4 is dependent upon claim 3, it is respectfully submitted that claim 4 distinguishes over the combination of Fusaki and Launey for the same reasons as those set forth above with respect to amended claim 3 (and amended claim 9). Moreover, Bijl does not rectify the shortcomings of the combination of Fusaki and Launey with respect to the base claim.

Nevertheless, even if Bijl did, *arguendo*, rectify the above-mentioned shortcomings, the additional limitations recited in claim 4 are still not disclosed, taught, or suggested in Bijl. More specifically, the Examiner contends that “[b]ecause Bijl et al assumes that unidentified signals cannot enter the system, he does not include *cancellation* as a means of disposing of unwanted messages”. Office Action dated July 2, 2001, p. 8. (Emphases in original).

First, Applicant has been unable to find any particular description in Bijl relating to the Examiner’s contention that Bijl “assumes that unidentified signals cannot enter the system”. Second, even if such contention were supported in Bijl, it does not necessarily follow that the “cancellation” feature was left out in Bijl due to an assumption that unidentified signals cannot enter the system; the feature could have been left out for a number of reasons, including the fact that only through hindsight could one argue that a cancellation feature should have been considered by Bijl in the first place.

Third, even if the cancellation feature was left out due to Bijl's assumption as described by the Examiner, the fact remains that there is no disclosure, teaching, or suggestion in Bijl of a canceler device that is configured to check whether the output information associated to the sound is true or false according to the source location of the sound, and that cancels transmission of the output information if the output information is false. Put another way, the rejection of claim 4 appears to be based on an assumption by the Examiner about what Bijl would have disclosed. As such, it is respectfully submitted that claim 4 distinguishes over the cited references and, as such, the rejection of claim 4 should be withdrawn.

Based on the above discussion, it is respectfully submitted that the cited references do not, individually or in combination, render any of the pending claims, as amended, obvious. Thus, it is respectfully requested that the rejection as to all pending claims be withdrawn.

New claims 14-15 have been added herein. The new claims do not introduce any new matter, and support therefor can be found in the specification, claims, and drawings as originally filed and as amended herein:

An Information Disclosure Statement is enclosed herewith. Copies of the references are included for the convenience of the Examiner.

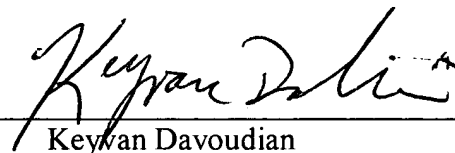
It is believed that the application is in condition for allowance, and favorable action is respectfully requested. If, for any reason, the Examiner finds the application other than in condition for allowance, the Examiner is requested to call one of the undersigned attorneys at the Los Angeles, California telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted

PILLSBURY WINTHROP LLP

Date: October 18, 2001.

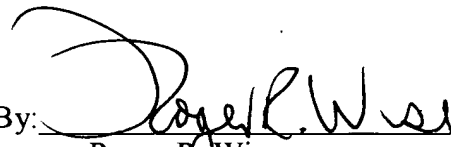
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The title is changed as follows:

IN THE DRAWINGS:

IN THE SPECIFICATION:

The specification is changed as follows:

On page 3, line 22, the paragraph beginning with “It is”:

It is therefore an object of the present invention to provide an information announcing apparatus, an information announcing remote terminal, and a method of controlling the information announcing apparatus, [which] to allow the user to register

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On page 5, line 2, the paragraph beginning with “In a”:

In a second aspect of the invention, an information apparatus is constructed for notifying output information to a remote terminal in response to an input signal of a sound. The information apparatus is comprised of a first memory block that [memorizes] stores characteristic data representing characteristics of various sounds, a second memory block that [memorizes] stores various items of output information [in correspondence] corresponding to the characteristic data of the various sounds such that each item of the output information is associated [to] with each sound, a plurality of input devices that are spatially distributed to collect a sound from a source location, and that respectively provide input signals of the same sound, a detector device that processes the input signals provided from the spatially distributed input devices to detect the source location of the sound, an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound, a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to [identity] identify the item of the output information corresponding to the collected sound, and a transmitter device that transmits the identified item of the output information to the remote terminal together with the detected source location of the sound. Preferably, the information apparatus further comprises a canceler device that checks whether the output information associated [to] with the sound is true or false according to the source location of the sound, and that cancels transmission of the output information if the output information is false.

On page 6, line 6, the paragraph beginning with "In a specific":

In a specific form, the analyzer device analyzes a frequency spectrum of the sound to extract therefrom a characteristic pattern, which is [memorized] stored as the characteristic data in the first memory block, and the controller device uses the characteristic pattern as an index to [identity] identify the item of the output information corresponding to the sound.

On page 7, line 16, the paragraph beginning with "Further, an inventive":

Further, an inventive informing method is designed for notifying output information to a remote terminal in response to an input signal of a sound. The informing method is comprised of the steps of [memorizing] storing characteristic data representing characteristics of various sounds in a first memory, [memorizing] storing various items of output information [in correspondence] corresponding to the characteristic data of the various sounds in a second memory such that each item of the output information is associated [to] with each sound, collecting a sound to provide an input signal of the collected sound, extracting characteristic data from the input signal of the collected sound, addressing the first memory and the second memory based on the extracted characteristic data to [identity] identify the item of the output information corresponding to the collected sound, transmitting the identified item of the output information to the remote terminal, and registering a new sound and a corresponding item of output

information to update the first memory and the second memory such that new characteristic data is extracted from the new sound and the corresponding item of the output information is determined in association with the new sound, and then the extracted new characteristic data is [memorized] stored in the first memory while the corresponding item of the output information is [memorized] stored in the second memory.

On page 10, line 12, the paragraph beginning with "The inventive information":

The inventive information apparatus of FIG. 1 is constructed for notifying output information to the remote terminal in response to an input signal of a sound. In the information apparatus, the first memory block 51 [memorizes] stores characteristic data representing characteristics of various sounds. The second memory block 52 [memorizes] stores various items of output information [in correspondence] corresponding to the characteristic data of the various sounds such that each item of the output information or phrase is associated [to] with each sound. The input device composed of the microphone 10 collects a sound to provide an input signal of the collected sound. An analyzer device including the frequency analyzer 30 extracts characteristic data from the input signal of the collected sound. The controller device 40 operates according to the extracted characteristic data for addressing the first memory block 51 and the second memory block 52 to [identity] identify the item of the output information corresponding to the collected sound. A transmitter device contained in the transmitter/receiver 70 transmits the identified item of the output information to a

receiver device contained in the transmitter/receiver 80 of the remote terminal. The inventive information apparatus has a registration mode, in which a new sound and a corresponding item of output information can be registered for updating the first memory block 51 and the second memory block 52 such that the analyzer device extracts new characteristic data from the new sound, and the controller device 40 registers the extracted new characteristic data into the first memory block 51 and registers the corresponding item of the output information into the second memory block 52.

On page 12, line 13, the paragraph beginning with "The following describes":

The following describes the details of the frequency analyzer 30 and the controller 40 shown in FIG. 1. The frequency analyzer 30 performs FFT, for example, on an input sound signal supplied from the A/D converter 20, and develops the transformed sound signal to the time-series spectrum of frequency and amplitude variations, thereby providing a sound spectrum. The sound spectrum is supplied to the controller 40 in which a sound pattern characterizing the sound is extracted from the sound spectrum. The extracted sound pattern indicates the characteristics unique to the timbre and tone of the sound. If the information announcing apparatus according to the invention is set to the registration mode, the extracted sound pattern is stored in the characteristic data memory block 51 of the memory device 50 under the control of the controller 40. Namely, in the inventive information apparatus, the analyzer device including the frequency analyzer 30 and controller 40 analyzes a frequency spectrum of the sound to extract therefrom a characteristic pattern, which is [memorized] stored as the

characteristic data in the first memory block 51, and the controller 40 uses the characteristic pattern as an index to [identity] identify the item of the output information corresponding to the sound.

On page 15, line 12, the paragraph beginning with "As described, the":

As described, the inventive informing method is designed for notifying output information to a remote terminal in response to an input signal of a sound. The informing method is comprised of the steps of [memorizing] storing characteristic data representing characteristics of various sounds in the first memory block 51, [memorizing] storing various items of output information [in correspondence] corresponding to the characteristic data of the various sounds in the second memory block 52 such that each item of the output information is associated [to] with each sound, collecting a sound to provide an input signal of the collected sound, extracting characteristic data from the input signal of the collected sound, addressing the first memory block 51 and the second memory block 52 based on the extracted characteristic data to [identity] identify the item of the output information corresponding to the collected sound, transmitting the identified item of the output information to the remote terminal, and registering a new sound and a corresponding item of output information to update the first memory block 51 and the second memory block 52 such that new characteristic data is extracted from the new sound and the corresponding item of the output information is determined in association with the new sound, and then the extracted new characteristic data is [memorized] stored

in the first memory block 51 while the corresponding item of the output information is [memorized] stored in the second memory block 52.

On page 21, line 6, the paragraph beginning with "The source location":

The source location identifying block 62 identifies the approximate location of the sound source on the basis of the results of the sound power analysis for each microphone 11 and the identification of the nearest microphone 11, and generates sound source location information, which is sent through the information transmitter/receiver 70 to the remote terminal. Namely, the inventive information apparatus is constructed for notifying output information to the remote terminal in response to the input signal of the sound. In the apparatus, the first memory block 51 [memorizes] stores characteristic data representing characteristics of various sounds. The second memory block 52 [memorizes] stores various items of output information [in correspondence] corresponding to the characteristic data of the various sounds such that each item of the output information is associated [to] with each sound. A plurality of input devices are spatially distributed in the form of the microphones 11 to collect a sound from a source location, and respectively provide input signals of the same sound. The detector device 60 processes the input signals provided from the spatially distributed input devices to detect the source location of the sound. At least one of the analyzer devices 30 extracts characteristic data from at least one of the input signals of the collected sound. The controller device 40 operates according to the extracted characteristic data for addressing the first memory block 51 and the second memory block 52 to [identity] identify the item

of the output information corresponding to the collected sound. The transmitter device 70 transmits the identified item of the output information to the remote terminal together with the detected source location of the sound.

On page 22, line 21, the paragraph beginning with "The announcement":

The announcement cancel block 63 stores, beforehand, specific items of sounds which should not inherently be detected [from] by the microphones 11. If [a sound which should not be detected is found detected] an unwanted sound is received by the microphones 11, the announcement cancel block 63 cancels the sending of the sound source location information to the information transmitter/receiver 70. A sound which should not be detected is exemplified by an alarm siren of an ambulance generated from a television set in a room. If this happens, such an alarm siren is recognized as false sounds. Namely, the canceler device or the announcement cancel block 63 checks whether the output information associated [to] with the sound is true or false according to the source location of the sound, and cancels transmission of the output information if the output information is false.

On page 25, line 18, the paragraph beginning with "A machine-readable":

A machine-readable medium M (FIG. 1) may be used in the inventive information apparatus having a central processing unit in the controller 40, the first memory block 51 [memorizing] storing characteristic data representing characteristics of various sounds,

and the second memory block 52 [memorizing] storing various items of output information [in correspondence] corresponding to the characteristic data of the various sounds such that each item of the output information is associated [to] with each sound. The medium M such as a floppy disk or CD ROM is loadable into a disk drive of the storage device 50, and contains program instructions executable by the central processing unit of CPU for causing the information apparatus to perform a process of notifying output information to a remote terminal in response to an input signal of a sound. The process is performed by the steps of collecting a sound to provide an input signal of the collected sound, extracting characteristic data from the input signal of the collected sound, addressing the first memory block and the second memory block based on the extracted characteristic data to [identity] identify the item of the output information corresponding to the collected sound, transmitting the identified item of the output information to the remote terminal, and registering a new sound and a corresponding item of output information to update the first memory block and the second memory block such that characteristic data is extracted from the new sound and the corresponding item of the output information is determined in association with the new sound, and then the extracted new characteristic data is [memorized] stored in the first memory block while the corresponding item of the output information is [memorized] stored in the second memory block.

IN THE CLAIMS:

Claims 1, 2, 6, 8, 10, and 12 are cancelled.

Claims 3, 4, 5, 7, 9, 11, and 13 are amended as follows:

3. (Amended) An information apparatus for notifying output information to a remote terminal in response to an input signal of a sound, comprising:

a first memory block [that memorizes] configured to store characteristic data representing characteristics of various sounds;

a second memory block [that memorizes] configured to store various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound;

a plurality of input devices that are spatially distributed to collect [a] the sound from a source location, and that respectively provide input signals of the same sound;

a detector device that processes the input signals provided from the spatially distributed input devices to detect the source location of the sound;

an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound;

a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to [identity] identify one of the items of the output information corresponding to the collected sound; and

a transmitter device that transmits the identified one of the items of the output information to the remote terminal together with the detected source location of the sound.

4. (Amended) The information apparatus as claimed in claim 3, further comprising a canceler device [that checks] configured to check whether the output information associated to the sound is true or false according to the source location of the sound, and [that cancels] to cancel transmission of the output information if the output information is false.

5. (Amended) The information apparatus as claimed in claim 3, wherein the analyzer device [analyzes] is configured to analyze a frequency spectrum of the sound to extract therefrom a characteristic pattern, which is [memorized] stored as the characteristic data in the first memory block, and the controller device [uses] is configured to use the characteristic pattern as an index to [identity] identify the one of the items of the output information corresponding to the sound.

7. (Amended) [The] A remote terminal for use in combination with the information apparatus as claimed in claim 3, comprising:

a receiver device [that receives] configured to receive the output information transmitted from the information apparatus;

a stimulator device [that is], said stimulator device being activated when the output information is received by the receiver device for physically stimulating a user of the remote terminal to draw attention of the user to the output information; and

a display device that [displays] is configured to display the received output information such that the stimulated user can readily read the output information.

9. (Amended) A[n informing] method of notifying output information to a remote terminal in response to an input signal of a sound, comprising the steps of:

[memorizing] storing characteristic data representing characteristics of various sounds in a first memory;

[memorizing] storing various items of output information in correspondence to the characteristic data of the various sounds in a second memory such that each one of the items of the output information is associated to each sound;

arranging a plurality of input devices in different locations, said input devices being configured to collect [a] the sound from a source location such that each one of the input devices provides [each] input signals of the same sound emitted from the source location;

processing the input signals provided from the plurality of [the] input devices to detect the source location of the sound;

extracting characteristic data from at least one of the input signals of the collected sound;

addressing the first memory and the second memory based on the extracted characteristic data so as to [identity the] identify one of the items of the output information corresponding to the collected sound; and

transmitting the identified one of the items of the output information to the remote terminal together with the detected source location of the sound.

11. (Amended) A machine-readable medium for use in an information apparatus having a central processing unit, a plurality of input devices, a first memory [memorizing] storing characteristic data representing characteristics of various sounds, and a second memory [memorizing] storing various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound, the medium containing program instructions executable by the central processing unit for causing the information apparatus to perform a process of notifying output information to a remote terminal in response to an input signal of a sound, wherein the process comprises the steps of:

operating the plurality of [the] input devices arranged in different locations to collect [a] the sound from a source location such that each one of the input devices provides [each] input signals of the same sound emitted from the source location;

treating the input signals provided from the plurality of [the] input devices to detect the source location of the sound;

extracting characteristic data from at least one of the input signals of the collected sound;

addressing the first memory and the second memory based on the extracted characteristic data so as to [identity the] identify one of the items of the output information corresponding to the collected sound; and

transmitting the identified one of the items of the output information to the remote terminal together with the detected source location of the sound.

means for transmitting the identified output phrase to the remote terminal together with the detected source location of the sound.

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